

WHAT IS CLAIMED IS:

507 1. For a picture archiving and communication system (PACS), a method for partial preprocessing of raw image data at an image acquisition workstation connected to the PACS system, the method comprising:

receiving raw image data from an imaging modality;

5 storing predetermined preprocessing functions applicable to the raw image data;

applying at least one and fewer than all of the preprocessing functions to the raw image data to form partially preprocessed raw image data; and

10 transmitting the partially preprocessed raw image data to a PACS network for storage in a preprocessing database.

2. The method of claim 1, wherein the step of predetermining further comprises predetermining preprocessing functions including at least one frequency preprocessing function and at least one contrast preprocessing function.

15 3. The method of claim 1, wherein the step of applying further comprises applying at least one frequency preprocessing function to the raw image data.

4. The method of claim 3, wherein the step of applying further comprises applying a frequency preprocessing function characterized by at least one of a RN, RE, and RT preprocessing parameter.

20 5. The method of claim 2, wherein the step of applying further comprises applying the at least one contrast preprocessing function to the raw image data.

25 6. The method of claim 5, wherein the step of applying further comprises applying a contrast preprocessing function characterized by at least one of a GT, GA, GC, and GS preprocessing parameter.

7. An image acquisition workstation for a picture archiving and communication system (PACS) and for partial preprocessing of raw image data, the image acquisition workstation comprising:

a processing circuit;

an imaging modality interface for receiving raw image data; and

a software memory coupled to the processing circuit, the software memory storing instructions for:

5 receiving the raw image data from an imaging modality;

applying at least one and fewer than all of predetermined preprocessing functions to the raw image data to form partially preprocessed raw image data; and

transmitting the partially preprocessed raw image data to a PACS network for storage in a preprocessing database.

10 8. The image acquisition workstation of claim 7, wherein the raw image data corresponds to an anatomical region, and wherein the at least one preprocessing function applied to form the partially preprocessed raw image data is selected based on the anatomical region.

15 9. The image acquisition workstation of claim 7, wherein the predetermined preprocessing functions including at least one frequency preprocessing function and at least one contrast preprocessing function.

10. The image acquisition workstation of claim 9, wherein the applying instructions further comprise instructions for applying the at least one frequency preprocessing function to the raw image data.

20 11. The image acquisition workstation of claim 10, wherein the applying instructions further comprise instructions for applying a frequency preprocessing function characterized by at least one of a RN, RE, and RT preprocessing parameter.

25 12. The image acquisition workstation of claim 9, wherein the applying instructions further comprise instructions for applying the at least one contrast preprocessing function to the raw image data.

13. The image acquisition workstation of claim 12, wherein the applying instructions further comprise instructions for applying a contrast

preprocessing function characterized by at least one of a GT, GA, GC, and GS preprocessing parameter.

14. A medical data network comprising:

an imaging modality;

an image acquisition workstation;

a PACS network interfaced to the image acquisition workstation, the PACS network comprising a networked PACS image database, display workstation, and preprocessing database, and wherein the image acquisition workstation comprises:

a processing circuit;

an imaging modality interface coupled to the imaging modality for receiving raw image data; and

a software memory coupled to the processing circuit, the software memory storing instructions for:

receiving the raw image data from an imaging modality;

applying at least one and fewer than all of predetermined preprocessing functions to the raw image data to form partially preprocessed raw image data; and

transmitting the partially preprocessed raw image data to a PACS network for storage in a preprocessing database.

15. The medical data network of claim 14, wherein the raw image data corresponds to an anatomical region, and wherein the at least one preprocessing function applied to form the partially preprocessed raw image data is selected based on the anatomical region.

16. The medical data network of claim 14, wherein the predetermined preprocessing functions including at least one frequency preprocessing function and at least one contrast preprocessing function.

17. The medical data network of claim 16, wherein the applying instructions further comprise instructions for applying the at least one frequency preprocessing function to the raw image data.

5 18. The medical data network of claim 17 wherein the applying instructions further comprise instructions for applying a frequency preprocessing function characterized by at least one of a RN, RE, and RT preprocessing parameter.

19. The medical data network of claim 16, wherein the applying instructions further comprise instructions for applying the at least one contrast preprocessing function to the raw image data.

10 20. The medical data network of claim 19, wherein the applying instructions further comprise instructions for applying a contrast preprocessing function characterized by at least one of a GT, GA, GC, and GS preprocessing parameter.